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ABSTRACT

The purpose of this study was to provide an overall appraisal of preservice teacher education programs by teachers and administrators in the Utah public schools. A random stratification sample based on education level (elementary and secondary), locale (urban vs. rural), and position (teacher, principal, or superintendent) was obtained from the Utah School Board personnel computer tape file. Statistical results of a questionnaire confirmed findings reported in personal interviews that teachers, principals, and superintendents felt strongly the need to improve preservice programs. Teachers, principals, and superintendents differed somewhat in their responses to the majority of teaching skills. Principals and superintendents tended to rate the preparation level of their teachers higher than teachers themselves did. The results of an analysis of the survey indicated that in the opinion of superintendents, principals, and teachers, the preservice training programs experienced by teachers in Utah public schools have not adequately prepared teachers for their teaching experiences. (JD)

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A LARGE-SCALE EVALUATION OF PRESERVICE TEACHER EDUCATION PROGRAMS

Clark D. Webb, L. La Mar Adams, and G. Gardner Snow

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ABSTRACT

The purpose of this study was to provide an overall appraisal of preservice teacher education programs by teachers and administrators in public schools. The scope of the study was limited to particular preservice programs which had been attended by teachers in Utah public schools at the secondary and elementary levels. A representative stratified random sample was obtained from the Utah School Board personnel computer tape file. The stratification was based on education level (elementary and secondary), locale (urban vs. rural), and position (teacher, principal, or superintendent).

Statistical results of the questionnaire confirmed findings reported in personal interviews in that teachers, principals, and superintendents felt very strongly the need to improve preservice programs. In general, these educators indicated that teacher education programs have not adequately prepared teachers.

Teachers, principals, and superintendents differed somewhat in their responses to the majority of teaching skills. Principals and superintendents tended to rate the preparation level of their teachers higher than teachers themselves did, where differences existed.

Subgroup categories analyzed were Educator Position (teacher, principal, and superintendent), Sex, Education Level (elementary and secondary), and Years of Service (1-2 years, 3-5 years, and 6 or more years). Although differences existed for each category, they were both few and minor. Other than for the category of Educator Position, the largest number of differences existed between male and female teachers.

The results of this study indicate that preservice education programs need to be reoriented if they are to prepare prospective teachers adequately.

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Introduction

In an attempt to identify the extent to which differences exist between school practitioners' perceived needs in regard to preservice teacher education and those provided for in the programs offered by the colleges of education in the state, the Utah State Board of Education and the College of Education at Brigham Young University jointly sponsored a large-scale evaluation survey among teachers, principals, and district superintendents.

Related Research Reported

Evaluation of teacher education programs in institutions of higher education is one of the most crucial yet most ignored areas of educational research. This is the first study of this type to be conducted to date in the state of Utah. Nationally, the majority of reported follow-up studies on the effectiveness of teacher education programs has been limited to such specific areas as secondary science, socially disadvantaged students, and industrial arts. The Iowa Study (Glass and Keith, 1975) is one of the few reported research evaluations of general teacher education programs.

Evaluations of teacher education programs have also been somewhat limited in scope of analysis. For example, although the Iowa study reports skills and competencies which the teacher education graduates "wish they had," the study was designed primarily

to report career patterns of teacher education graduates. A study conducted by Thomas (1957) at the University of Utah was limited to teachers enrolled in a graduate education program. A couple of studies available, which were similar to the current study, reported results only in a limited number of areas similar to those of this study. In addition, there appeared to be only limited overlap among the other studies as to their approach and results. Baer and Foster (1974) found that "student teaching was rated as the course or experience of greatest value." Hopkins (1970) reported that graduates "expressed concern over lack of actual experience working with children." Hopkins also reported that most of the respondents felt that courses of practical experience, such as student teaching, were of most benefit. Baer and Foster (1974) indicated that graduates wanting more exposure in practical teaching experiences reported that "student teaching at more than one grade level would have been of greater value" than their limited experience with one grade. The majority of the few studies reported indicated that teachers felt that they should have had more training in dealing with the emotionally disturbed and other special students (e.g., Haberman, 1974).

As yet, sufficient research has not been completed across the nation to determine the extent to which expressed deficiencies in preservice teacher education programs can be generalized on a national level.

Purpose and Research Approach

The purpose of this study was to provide an overall appraisal of preservice teacher education programs by teachers and administrators

of public schools. The scope of the study was limited to particular preservice programs which had been attended by teachers currently (Spring 1977) teaching in Utah public schools at the secondary and elementary levels. A representative stratified random sample was obtained from the Utah School Baord personnel computer tape file. The stratification was based on education level (elementary and secondary), locale (urban vs. rural), and position (teacher, principal, or superintendent).

The educators included in this sample were limited to those for whom all information necessary for the analysis was currently on the personnel computer tape file. The sample for this study included 37 superintendents out of 40 in the state, 208 principals, and 996 teachers. A total of 38 superintendents responded, but one of the questionnaires was unusable because of insufficient information. Some of the statistical sets of comparisons in the study entailed smaller samples than other sets, depending on the number of missing variables for respondents in a given set of comparisons.

Research Procedures

Personal interviews were conducted in various parts of the state to determine the type of questionnaire, questionnaire items, and research approach which would be best adapted to this type of research. Although the format of certain questions in the questionnaire was not as practical as desired for statistical analysis, the primary consideration was to provide a more convenient response for the educators included in the study. In addition, certain questions in the questionnaire were based on requests from the State Board of Education.

Personal interviews indicated the free response questions, including "Further Comments" by the respondents, would be of prime interest

and value. For example, even though the questionnaire concluded with a request for further comments, one principal stated that it did not provide him with an opportunity to give his full appraisal of the topic, and he wrote an additional two-page letter. The free response questions in each of the four different questionnaire forms (Form A for principals, form B and C for teachers, and form D for superintendents; see appendix) provided valuable information to assist in upgrading preservice teacher education programs.

Several questions were amenable to various types of statistical analysis. The paired t test was used to compare the difference between a respondent's rating of the importance of a specific teaching skill and the same respondent's self-assessed level of preparation in the skill. The adequacy of preparation felt by a respondent was expected to be dependent upon the level of self-assessed importance of a teaching skill. Since the self-assessed level of preparation is dependent upon the felt level of importance, and yet the two measures are not statistically compatible, a unique statistical test was necessary to account for this problem. If a paired t statistic is used as an index of the magnitude of a self-assessed level of preparation in relation to the assessed level of importance for a given teaching skill, rather than a differential test for significant difference, the magnitude of the paired t value can be used to compare levels of self-assessed preparation between teaching skills and also between respondent subgroups (see Adams, 1972).

The multivariate analysis of variance was used to make comparisons between subgroups. In consideration of the type of educational data and relatively subjective levels of evaluation, the F values of the

analysis of variance were used as indices of relative similarities or dissimilarities rather than tests of significant difference.

Statistical Results

Statistical results of the questionnaire confirmed the findings reported in the personal interviews in that teachers, principals, and superintendents felt very strongly the need to improve preservice programs. In general, superintendents, principals, and teachers alike indicated that teacher education programs have not adequately prepared teachers. Each of the position groups (superintendents, principals, and teachers) rated all twelve of the teaching skills between "Somewhat" and "Highly" Important. The percent of responses for each level of rating, the rating mean, and paired (between Importance and Preparation per respondent) t value for each teaching skill are listed in Table 1.

The average ratings as to level of preparation for the twelve teaching skills ranged from slightly below Less than Adequate ($x = 0.9$ for teachers' response to question 1.I) to nearly Adequate ($x = 1.8$ for teachers' response to question 1.D).

Although skill category D (Subject Matter) had the highest percent of respondents for the rating of "Adequate," the paired t value indicates that teachers were as adequately prepared (t values below 5.6) in three other areas: A (Lesson Plans), B (Audio-Visual Equipment), and J (Community Standards).

There were three teaching skills for which all three subgroups of respondents rated the level of Importance very high ($x = 1.9$ to 2.0): F (Discipline), K (Relating to Students), and L (Evaluation). In addition, all three subgroups assessed the level of Preparation in these three skills as being notably insufficient ($x = 1.3$ to 1.6).

Table 1

Percent[a] of Response, Mean, and Paired t Value between Mean Response per Questionnaire Item[b] for Teachers, Principals, and Superintendents in the Utah Public School System, Spring 1977

Item	Response[c]	Teachers (n=350)			Principals (n=208)			Superintendents (n=37)		
		I	P	Paired t	I	P	Paired t	I	P	Paired t
A	0	3.2	2.9		0.5	2.0		2.6		
(Lesson	1	33.0	26.4		18.3	41.2		23.7	57.9	
Plans)	2	63.9	70.7		81.3	56.9		73.7	42.1	
	$\bar{x}$	1.6	1.7	-1.7	1.8	1.6	5.1	1.7	1.4	2.4
B	0	1.1	15.3		2.9	1.9				
(A-V	1	45.3	23.6		48.6	49.3		55.3	44.7	
Equipment)	2	53.6	61.1		48.6	48.8		44.7	55.3	
	$\bar{x}$	1.5	1.5	1.4	1.5	1.5	-0.1	1.5	1.6	-0.8
C	0	0.3	8.3		0.5	2.9				
(Instr.	1	16.1	42.8		10.1	49.3		23.7	42.1	
Materials)	2	83.6	48.9		89.4	47.8		76.3	57.9	
	$\bar{x}$	1.8	1.4	11.0	1.9	1.5	9.5	1.8	1.6	1.7

[a]Percent response is the percent of the total 0 through 2 response for each type of rating (Importance or Preparation).

[b]Items in question 1 of questionnaire provided in the appendix (e.g., Item A is Teaching Skill "a" on questionnaire question 1).

[c]Response for questionnaire: I = Important, 0 = No, 1 = Somewhat, 2 = Highly, $\bar{x}$ = mean of 0 through 2; P = Preparation, 0 = None, 1 = Less than Adequate, 2 = Adequate, $\bar{x}$ = mean of 0 through 2.

Table 1, continued

Items	Response	Teachers (n=350) I	Teachers (n=350) P	Teachers (n=350) Paired t	Principals (n=208) I	Principals (n=208) P	Principals (n=208) Paired t	Superintendents (n=37) I	Superintendents (n=37) P	Superintendents (n=37) Paired t
D	0		1.4			0.5				
(Subject	1	7.8	20.3		15.5	24.9		13.2	27.0	
Matter)	2	92.2	78.2		84.5	74.6		86.8	73.0	
	$\bar{x}$	1.9	1.8	5.6	1.9	1.7	2.7	1.9	1.7	1.4
E	0	0.9	3.8			1.9			2.6	
(Human	1	27.0	31.9		18.8	50.5		24.3	57.9	
Devel.	2	72.1	64.3		81.2	47.6		75.7	39.5	
	$\bar{x}$	1.7	1.6	2.9	1.8	1.5	7.7	1.8	1.4	3.6
F	0	0.6	17.2			7.2				
(Disci-	1	5.1	55.0		1.9	60.9		2.6	63.2	
pline)	2	94.3	27.8		98.1	31.9		97.4	36.8	
	$\bar{x}$	1.9	1.1	21.5	2.0	1.3	17.6	2.0	1.4	7.3
G	0	2.0	15.2		0.5	4.4			7.9	
(Innova-	1	49.6	54.6		57.5	52.9		65.8	50.0	
tions)	2	48.4	30.2		42.0	42.7		34.2	42.1	
	$\bar{x}$	1.5	1.4	7.2	7.2	1.4	0.5	1.4	1.3	0.2
H	0	2.6	26.2			8.2			5.3	
(Col-	1	39.4	35.2		25.4	32.9		26.3	28.9	
leagues)	2	58.0	38.6		74.6	58.9		73.7	65.8	
	$\bar{x}$	1.6	1.1	8.7	1.7	1.5	4.3	1.8	1.6	1.1
I	0	0.9	28.9			5.8			7.9	
(Parents)	1	22.3	51.4		11.0	58.7		7.9	73.7	
	2	76.9	19.7		89.0	35.6		92.1	18.4	
	$\bar{x}$	1.8	0.9	19.4	1.9	1.3	13.1	1.9	1.1	8.0

Table 1, continued

Item	Responses	Teachers (n=350) I	Teachers (n=350) P	Teachers (n=350) Paired t	Principals (n-208) I	Principals (n-208) P	Principals (n-208) Paired t	Superintendents (n=37) I	Superintendents (n=37) P	Superintendents (n=37) Paired t
J	0	4.6	27.0			4.8		2.6	13.2	
(Comm.	1	45.8	26.4		38.5	23.1		28.9	28.9	
Standards)	2	49.6	46.6		61.5	72.1		68.4	57.9	
	$\bar{x}$	1.5	1.2	5.2	1.6	1.7	-1.2	1.7	1.4	1.4
K	0	1.1	11.8			2.4			5.3	
(Students)[e]	1	8.0	40.8		7.2	53.4		2.6	44.7	
	2	90.9	47.4		92.8	44.2		97.4	50.0	
	$\bar{x}$	1.9	1.4	13.4	1.9	1.4	12.1	1.9	1.4	5.1
L	0	0.6	6.6			1.4				
(Evaluating)[f]	1	8.9	44.7		7.2	40.9		7.9	52.6	
	2	90.6	48.7		92.8	57.7		92.1	47.4	
	$\bar{x}$	1.9	1.4	13.2	1.9	1.6	9.0	1.9	1.5	4.3

[e] Relating personnaly to individual students.

[f] Evaluating student work and achievement.

At least 50 percent of the respondents in each subgroup indicated level of teacher preparation was insufficient. The paired t value of 21.5 for skill F (Discipline) indicates that teachers felt that this was the most crucial area of insufficiency.

Another teaching skill for which teachers expressed a great lack of preparation compared to the importance of the skill was I (Working with Parents in the Educational Process).

Subgroup Comparisons

Although educators in this study agreed in their appraisal of the majority of the areas evaluated, there were a number of provocative differences in their appraisals.

Comparison between subgroups indicated that a number of differences existed between the subgroups in evaluating preservice programs. Subgroup categories analyzed were Educator Position (teacher, principal, and superintendent), Sex, Education Level (elementary and secondary), and Years of Service (1-2 years, 3-5 years, and 6 or more years).

Educator Position

Table 2 contains mean responses for each category in Question #1 according to Educator Position and Table 3 lists the mean and F value for only the cases where considerable differences existed between subgroups. The means in Table 3 are the same as the corresponding mean in Table 2 except that in Table 3 they are rounded to only one decimal place for ease of reading.

Average responses to level of Importance and level of Preparation between position groups which could be considered to be very similar were not included in Table 3. For example, the average responses

Table 2

Mean Response for Degree of Importance of Teaching Skill and Level of Teacher Preparation Received in Pre-Service Teacher Education Programs for Teachers in Utah Public Schools, Spring 1977, According to Three Types of Educator Positions

	Teachers		Principals		Superintendents	
Question, Item	Importance	Preparation	Importance	Preparation	Importance	Preparation
1, A (Lesson Plans)	1.57	1.62	1.81	1.55	1.67	1.42
B (Audio-Visual Equipment)	1.52	1.38	1.46	1.46	1.45	1.61
C (Instructional Materials)	1.77	1.37	1.88	1.44	1.76	1.54
D (Subject Matter)	1.90	1.73	1.84	1.76	1.85	1.70
E (Human Development)	1.68	1.65	1.82	1.44	1.79	1.39
F (Discipline)	1.92	1.11	1.98	1.25	1.97	1.39
G (Innovations)	1.53	1.18	1.44	1.40	1.33	1.36
H (Colleagues)	1.58	1.15	1.74	1.54	1.76	1.54
I (Working with Parents)	1.74	0.88	1.89	1.32	1.91	1.12
J (Community Standards)	1.44	1.20	1.63	1.70	1.61	1.42
K (Relating to Students)	1.90	1.35	1.94	1.43	1.97	1.45
L (Evaluating)	1.88	1.42	1.93	1.57	1.94	1.45
2, A (Developing Talents)	1.88	1.14	1.94	1.24	1.91	1.18
B (Develop Self-Confidence)	1.94	1.20	1.98	1.28	1.91	1.18

Table 3

Statistical[a] Comparisons of Greatest Differences in Subgroup Average Responses to Question #1 by Teachers, Principals, and Superintendents, Spring 1977

Item (Question #1)	Mean Response			F
	Teachers n = 715	Principals n = 185	Superintendents n = 33	
A (Lesson Plans); Importance	1.6	1.8	1.7	16
C (Instructional Materials); Importance	1.8	1.9	1.8	6
E (Human Development); Importance	1.7	1.8	1.8	7
E (Human Development); Preparation	1.7	1.4	1.4	15
F (Discipline); Preparation	1.1	1.3	1.4	6
G (Innovations); Importance	1.5	1.4	1.3	4
G (Innovations); Preparation	1.2	1.4	1.4	9
H (Colleagues); Importance	1.5	1.7	1.8	10
H (Colleagues); Preparation	1.1	1.5	1.5	23
I (Working with Parents); Importance	1.7	1.9	1.9	11
I (Working with Parents); Preparation	0.9	1.3	1.1	23
J (Community Standards); Importance	1.4	1.6	1.6	9
J (Community Standards); Preparation	1.2	1.7	1.4	30
L (Evaluating); Preparation	1.4	1.6	1.5	5

[a]The F value is used as an index of comparison rather than a test of significant difference.

for Teachers, Principals, and Superintendents to the importance of the teaching skills in Handling Classroom Discipline ranged from 1.92 to 1.98. In other words, all three groups rated this skill as being highly "Important."

The area of largest difference between position subgroups in Question #1 was for the level of Preparation in Adjusting to Community Morals and Standards (F = 30, Table 3). Both principals and superintendents felt that teachers were more highly prepared (1.7 and 1.4 respectively) than did the teachers (1.2). Although there were teachers who rated the importance of this skill somewhat lower than administrators (1.4 compared to 1.6 in Table 3), the difference was only minor. A similar situation existed for teaching skill I (Working with Parents). Teachers tended to rate their level of Preparation lower than principals (0.9 compared to 1.3), but superintendents rated (1.1) the teachers' level of Preparation between that of the teachers and the principals. Although there was a slight difference in their rating of the degree of Importance for this skill, all three groups tended to indicate that Working with Parents was highly important (1.7 and 1.9).

A third skill in which considerable difference existed between group means was H (Dealing with Colleagues). Again, administrators felt teachers were better prepared in this area than did the teachers themselves (1.1 compared to 1.5).

Teachers rated themselves as being slightly more prepared than administrators rated them in the area of E (Human Development): 1.6 for teachers compared to 1.4 for the administrators.

Question #2 of the questionnaire asks educators to assess Importance and Preparation for teachers in two other special areas of teaching.

One area in designated "Helping each student understand and develop his particular talents." The other is "Helping each student develop self-confidence in his academic ability." There was very little or no difference between the types of educators in response to these two items (Table 2, Question #2). Both these areas were rated among the highest in Importance (1.88 to 1.98, where 2.0 is maximum) for successful teaching, and yet both were rated as being Less than Adequate (i.e., near 1.0, 1.14 to 1.28 in Table 2) as to level of Preparation. There were only two other areas in which teachers rated themselves as low in Preparation level (1.14) as they did for "Helping Each Student Understand and Develop his Particular Talent": Handling Classroom Discipline, and Working with Parents.

In all but two cases in Table 2, principals tended to rate teachers' level of Preparation higher than teachers did themselves. These two exceptions were A (Lesson Plans) and E (Human Development). Superintendents rate the teachers' level of Preparation as high or higher than teachers did themselves in all cases except for Preparing Lesson Plans.

Additional differences in ratings between position categories, as summarized from both tables 1 and 3, include the following:

1. Teachers rated the importance of the teaching skill "Preparing lesson plans" ($\bar{x}$ = 1.6, Table 3) slightly lower than did superintendents ($\bar{x}$ = 1.7), and superintendents rated it lower than principals ($\bar{x}$ = 1.8). Teachers often indicated that they were adequately prepared for this skill, whereas the administrators felt that the preservice program did not provide an entirely adequate preparation.

2. Superintendents rated I (Working with Parents) as the teaching skill with the least adequate preparation ($\bar{x}$ = 1.1). Although teachers

did not rate this skill as high as principals and superintendents, it was also rated by teachers as an area of great insufficiency in their preservice training.

3. Teachers tended to rate H (Dealing with Colleagues) as less important ($\bar{x}$ = 1.5) than administrators did ($\bar{x}$ = 1.7 and 1.8), and also tended to rate their level of preparation considerably less than administrators rated them (1.1 and 1.5 respectively).

4. Teachers rated their level of preparation in skill F (Discipline) lower ($\bar{x}$ = 1.1) than administrators rated them ($\bar{x}$ = 1.3 and 1.4).

5. Teachers rated J (Community Standards) as less important (1.4) than did administrators (1.6) and also rated their level of preparation (1.2) lower than administrators (1.7 and 1.4) rated them.

Teachers' responses were more uniform as a group than were principals and superintendents. Standard deviation for average responses ranged from 0.01 to 0.03 for teachers, from 0.02 to 0.05 for principals and from 0.04 to 0.14 for superintendents. Thus, responses for superintendents were more widespread for items in questions 1 and 2 than were responses for teachers and principals.

Differences According to Sex. Table 4 contains statistical comparisons for teaching skills surveyed in questions 1, 2, and 6. There were little or no differences between male and female average responses for items not listed in Table 5. Most of the differences were related to level of Importance. There are only slight differences (maximum F value of only 7) between male/female responses for all items listed in Table 4. In each of these cases, the mean response for female teachers was higher than for male teachers. For example,

Table 4

Means and Rummage[a] F Values of Questionnaire[b] Responses for which Differences Existed between Male and Female Teachers[c] of Utah Public Schools, Spring 1977

Question, Item	Sex		F
	Male n = 201	Female n = 205	
1, B (Audio-Visual Equipment); Importance	1.5	1.6	5
1, C (Instructional Materials); Importance	1.7	1.8	7
1, E (Human Development); Preparation	1.5	1.7	7
1, G (Innovations); Importance	1.4	1.6	4
1, I (Working with Parents); Importance	1.7	1.8	5
1, K (Relating to Students); Preparation	1.2	1.5	7
2, B (Develop Self-Confidence); Importance	1.9	2.0	7
6 (Overall Assessment)[d]	2.1	2.3	7

[a]Rummage is a multivariate analysis of variance program, currently on the BYU Computer Center system, which adjusts for missing data.

[b]Questions 1, 2, 6, and 11 were included in the analysis for this table.

[c]A stratified random sample of all full-time teachers in Utah at the time.

[d]Overall assessment of preservice training, 1 = poor, 3 = excellent.

the level of importance attached to the skill of operating audio-visual equipment (Item B) was higher for female teachers than for male teachers. There were two levels of preparation in which females rated themselves higher than males: "Knowledge of Human Growth and Development" and "Relating Personally to Individual Students."

Females tended to rate the level of their preservice training program higher than did males. However, both male and female teachers tended to give an overall assessment of their training program as being Adequate.

Differences According to Education Level. Table 5 contains only items for which differences in responses existed between elementary and secondary teachers for questions 1, 2, and 11. There were little or no differences for these groups in response to Question #6 (overall assessment of their preservice training program was rated Adequate).

There were only three items in Question #1 for which the responses differed between elementary and secondary teachers: C (Subject Matter Knowledge), E (Human Development), and F (Discipline). These differences were in relation to their level of Preparation only. On the average, elementary and secondary teachers agreed as to the degree of importance for all items in both questions 1 and 2. They also reported similar levels of preparation in these two questions (see Table 5).

The following list summarized the differences in response between elementary and secondary teachers in relation to the four questions analyzed:

1. Secondary teachers rated their level of Preparation (1.9) in Subject Matter Knowledge higher than did elementary teachers (1.6).

Table 5

Means and Rummage F Values of Questionnaire Responses for which Differences Existed between Elementary and Secondary Teachers of Utah Public Schools, Spring 1977

Question, Item	Elementary n = 204	Secondary n = 302	F
1, D (Subject Knowledge); Preparation	1.6	1.9	20
1, E (Human Development); Preparation	1.7	1.5	8
1, F (Discipline); Preparation	1.3	1.1	7
2, B (Develop Self-Confidence); Preparation	1.3	1.1	4
1, (Self Rating)*	3.1	3.0	4

*Teachers' rating of their adequacy as a teacher, 5 = excellent, 1 = inadequate.

2. Elementary teachers rated their level of Preparation (1.7) in Knowledge of Human Growth and Development higher than secondary teachers (1.5).

3. Elementary teachers rated themselves higher in level o Preparation (1.3) for Handling Classroom Discipline than did secondary teachers (1.1).

4. Elementary teachers rated themselves higher in level of Preparation (1.3) in Helping Each Student Develop Self-Confidence in His Academic Ability than did secondary teachers (1.1).

5. Elementary teachers rated (3.1) themselves higher than secondary teachers rated (3.0) themselves as to how good a teacher they are.

In general, these differences might be expected between elementary and secondary teachers in consideration of the differences in pre-service training programs and also in the different types of problems and situations at the two different levels in the public schools. However, both elementary and secondary teachers indicated that their preservice training was less than adequate in handling classroom discipline. Surprisingly, most of the differences between elementary and secondary teachers were only slight. For example, only one of the F values (20), in Table 5, was large enough to reflect a major difference.

Differences According to Years of Experience. Differences between new teachers and teachers who have had more experience could also be expected, both because of experience in the field and also because of changes in preservice programs over the years. However, there were only 5 out of the 30 responses to questions 1 and 2 for

which such differences existed. The observed differences, listed in Table 6, were in relation to the following items:

1. Preparation level for Knowledge of Human Growth and Development.

2. Preparation level for Assessing and Implementing Innovations.

3. Preparation level for Dealing with Colleagues in a Professional Setting.

4. Degree of importance for Working with Parents in the Educational Process.

5. Feelings as to how good a teacher they are.

However, the difference across years of experience was not always directional. For example, the changes in the rated degree of importance of J (Adjusting to Community Morals) were not consistent with additional years of experience. Teachers with one to two years had a rating of 1.4, teachers with three to five years had the lowest rating (1.2), and those with six years or more had the highest rating (1.6). Only two items had ratings which were consistently directional across years of experience: G (Innovations) and Question #11 (Self Rating). Newer teachers rated themselves as being more prepared than older teachers in Assessing and Implementing Innovations. However, the longer teachers have been teaching, the higher they rated themselves in their feelings as to how good they are.

Subgroup Interaction. There was one principal item for which Interaction relationships between subgroups indicated that differences between group responses existed in addition to those found in the previous tables. This was between sex and level of education for the degree of importance of skill C (Selecting and Using Instructional

Table 6

Means and Rummage F Values of Questionnaire Responses for which Differences Existed between Categories of Years of Experience for Teachers of Utah Public Schools Spring 1977

Question, Item	Years Experience 1-2 n = 59	3-5 n = 70	6+ n =277	F
1, E (Human Development); Preparation	1.5	1.5	1.7	4
1, G (Innovations); Preparation	1.4	1.3	1.1	5
1, H (Colleagues); Preparation	1.3	0.9	1.2	5
1, J (Community Standards); Importance	1.4	1.2	1.6	12
11 (Self Rating)*	2.8	3.1	3.8	9

*Teachers' rating of their adequacy as a teacher, 5 = excellent, 1 = inadequate.

Materials). There was an interaction difference in that both male and female elementary teachers responded to this item similarly, but female secondary teachers responded differently than male secondary teachers. Elementary teachers, female and male, had an average rating (for the importance of this skill) at 1.8, female secondary teachers at 1.9, and the male secondary teachers at 1.6. Selecting and using instructional materials appear to be highly important to female secondary teachers, nearly as important for both male and female elementary teachers, and only somewhat important for male secondary teachers.

Differences According to Locale. Since available information in relation to subgroups was incomplete for teachers in rural schools, analysis according to locale was limited to a one-way analysis of variance, ignoring position, education level, sex, and years experience. Table 7 contains the means and F values for three response items for which differences existed between urban and rural teachers. Since differences existed for only 2 of the 30 types of responses to questions 1 and 2, and since these two differences were only slight, the overall responses between urban and rural teachers could be considered as similar. Rural teachers rated the importance of item D (Operating Audio-Visual Equipment) slightly higher (1.6) than did urban teachers (1.5). Rural teachers also tended to rate their level of Preparation in J (Adjusting to Community Morals and Standards) slightly higher than did urban teachers. Urban teachers tended to rate their quality of teaching slightly higher than did rural teachers, according to responses to Question #11 (Table 7).

Place to Acquire Skills. Table 8 contains percentage of responses for Question #6 ("the best place to acquire the skills listed").

Table 7

Means and Rummage F Values of Questionnaire Responses for which Differences Existed between Urban and Rural Teachers of Utah Public Schools, Spring 1977

Question, Item	Urban Mean	Urban N	Rural Mean	Rural N	F
1, B (Audio-Visual Equipment); Importance	1.5	361	1.6	635	6
1, J (Community Standards); Preparation	1.1	361	1.3	635	5
11 (Self Rating)*	3.3	262	3.1	444	10

*Teachers' rating of their adequacy as a teacher, 5 = excellent, 1 = inadequate.

Table 8

Percentage of Responses as to the Best Place to Acquire Each Skill, A - L, According to Teachers in Utah Public Schools, Spring 1977

Item	University Classes	Student Teaching	Inservice Education	Other	Multiple Responses	Total[a] Percent	Total Responses
A (Lesson Plans)[b]	33%	33%	8%	4%	22%	100%	786
B (Audio-Visual Equipment)	57%	7%	16%	4%	15%	100%	792
C (Instructional Materials)	35%	17%	18%	8%	23%	100%	785
D (Subject Knowledge)	67%	5%	4%	5%	19%	100%	790
E (Human Development)	64%	8%	6%	4%	18%	100%	781
F (Classroom Discipline)	7%	34%	11%	13%	36%	100%	795
G (Innovations)	17%	20%	32%	12%	19%	100%	777
H (Dealing with Colleagues)	13%	24%	22%	22%	20%	100%	782
I (Working with Parents)	8%	24%	26%	22%	19%	100%	788
J (Community Standards)	15%	17%	29%	26%	13%	100%	762
K (Relating to Students)	7%	40%	12%	15%	26%	100%	788
L (Evaluation)	22%	32%	9%	12%	25%	100%	771

[a] Row totals may not equal 100% because of rounding.

[b] Abbreviated form for corresponding skills listed in Question 1 of questionnaire.

According to these results, the best place to acquire the teaching skills depended upon the skill. For example, the majority of teachers indicated that University Classes were the best place to acquire the three skills of Operating Audio-Visual Equipment (57% of the teachers), Subject Matter Knowledge (67%), and Knowledge of Human Growth and Development (64%). Student Teaching, Inservice Education, and a combination of these with University Classes were each recommended by as many as one-third of the teachers, depending on the particular skill. For example, University Classes and Student Teaching each received 33% of the responses as the best place to acquire the skill of Preparing Lesson Plans. In addition, 22% indicated that a combination of the places listed was desirable.

In addition, the following list is a summary of the best places to acquire the skills for items F through L according to the highest percentages of responses:

F. (Classroom Discipline)--Student Teaching (33%) and Multiple Settings (36%).

G. (Innovations)--Inservice Education (32%).

H. (Dealing with Colleagues)--Student Teaching (24%), Inservice Education (22%), Other (22%), and Multiple Settings (20%).

I. (Working with Parents)--Student Teaching (24%), Inservice Education (26%), Other (22%), and Multiple Settings (19%).

J. (Community Standards)--Inservice Education (29%), and Other (26%).

K. (Relating to Students)--Student Teaching (40%), and Multiple Settings (26%).

L. (Evaluating Achievement)--Student Teaching (32%) and Multiple Settings (25%).

Factors in Poor Teaching. Teachers were asked to rank the three most significant factors that result in poor teaching. Table 9 contains the percentage of responses according to the three most significant factors in rank order. According to these results, classroom discipline was the factor most often listed as rank order number 1. Inability to communicate subject was number 2. "Other" was number 3. Factors specified in the classification of "Other" are listed in the appendix under Item I for Question #3. Inadequate knowledge of subject matter was the fourth most often mentioned factor.

Additional Topics

Although the different types of educators surveyed indicated that preservice training was less than adequate for the specific teaching skills listed in the questionnaire, when asked to evaluate (Question #6) their preservice education in general, the majority of teachers rated it as being either "adequate" or "excellent." Only 16% of the teachers rated their programs as having been poor, whereas 61% assessed them as adequate, and 23% as excellent. This is an interesting contrast to the same teachers' evaluations of preservice programs in relation to the specific teaching skills.

In response to Question #9, the most popular "ultimate personal career goal" was to remain in a teaching assignment similar to the present assignment. Approximately 68% of the teachers indicated that they preferred to remain in teaching assignments, 10% preferred to change to different age groups, 2% preferred to change to counseling, 9% desired to become an administrator, and 11% indicated they would like to leave teaching for other positions. This last category might

Table 9

Percent Responses Rank Ordering Items as Reason for Teacher Failure as Given by Teachers in Utah Public Schools, Spring 1977

Item	Rank Order 1	2	3	Total	N
A (Subject Matter Knowledge)	10.6%[a]	11.7%	13.0%	11.8%[b]	284
B (Communicate Subject Matter)	17.1%	26.1%	22.7%	21.9%	528
C (Classroom Discipline)	41.2%	20.8%	17.2%	26.8%	657
D (Human Growth & Development)	4.2%	6.4%	6.6%	5.7%	138
E (Improper Assignment)	2.8%	6.3%	7.5%	5.5%	132
F (Extra-Classroom Duties)	3.4%	6.4%	11.0%	6.8%	165
G (Community's Lifestyle)	0.7%	2.7%	2.8%	2.0%	49
H (Preparation for Classes)	19.9%	19.4%	19.2%	19.5%	472
Total Percent	100.0%	100.0%	100.0%	100.0%	
Total Responses	848[c]	792	775		2415[d]

[a] 10.6% of all Rank 1 responses were for Item A.

[b] 11.8% of all responses (1-3) were for Item A.

[c] 848 respondents assigned a rank of 1 to one of the Items A - H.

[d] Total of all response ranks 1-3 and therefore approximately 3 times the number of respondents.

be expected to be high since it included leaving teaching to become a full-time housewife and mother.

A substantial majority of teachers (76%) indicated that if they "had it to do over again" (Question #10), they would choose education as a career. Approximately 11% indicated that they were undecided and 13% responded that they would not choose education as a career. This 13% may be an indication that efforts to screen prospective teachers as to potential career longevity may be worthwhile to institutions which provide teacher training programs.

Responses to Question #11 confirm the researchers' suspicion that self-evaluations of this nature are unrealistic. Over 90% of the teachers indicated that they felt they were either an excellent or better than average teacher. Only 8% indicated that they were an average teacher. It could also be expected that those teachers who "truly" (whatever that means) are excellent teachers may be classifying themselves as better than average or average. At any rate, not much credence can be placed in responses to this question.

Results From Free-Response Questions and Personal Interviews

Responses to open-ended questions in the questionnaire and from personal interviews in general were similar in relation to needs in preservice training programs.

Free-Response Questions

The responses to Question #1.M. (Other), "Further comments" sections, and other types of open-ended questions are listed in the appendix of the final report. The suggestions by teachers listed for Question #1.M. (Other Teaching Skills) included skills in

motivation, classroom time management, behavior modification, dealing with administrators, and grading student achievement.

Approximately 25% of the respondents wrote comments and suggestions on the questionnaire under "Further Comments." The most frequently expressed notion was that more preservice teaching experience is needed. This need was listed both by teachers and administrators. The comment made most often by principals and superintendents concerned the need for training in classroom discipline and control. One comment by a superintendent is representative of those most commonly listed:

> First year teachers fail mainly from lack of ability to manage a classroom of students and poor discipline procedures. Then follows closely the item called public relations--the ability to communicate with students, parents, and the general public.

Another of the most common recommendations was for teacher education courses to eliminate much of the theory and philosophy of education and substitute more practical, realistic, and meaningful education classes. Underscoring the responses to Question #1.M., teachers emphasized the need for earlier and more extensive teaching experience in the public school classroom.

A significant number of administrators and teachers recommended that prospective teachers be screened more adequately. In addition, some teachers recommended screening the cooperating teachers (those who are responsible for prospective teachers in the classroom). One administrator stated that some teachers start out as poor teachers, and in three to five years become some of the best. One of the frequent comments made by administrators, both in the questionnaire and in personal interviews, was that respect and love for human beings was the key to successful teaching.

A distressingly large number of administrators and teachers expressed strong negative feelings and even resentment toward the faculty of their preservice education programs. An often-expressed feeling was that university professors should have recent experience in public school teaching. One administrator stated that college professors should return to public school teaching one out of every five years.

Many administrators indicated that teachers need to find their own way of teaching and handling classroom discipline, but that more practical experience and example is needed to help them do so.

It was emphasized by a number of respondents that there is a need to have an internship with the best, and a variety of, cooperating teachers. Where only one cooperating teacher is used, two major problems result. First, the prospective teacher has a limited exposure to the reservoir of skills of the profession. Second, evaluations of prospective teachers by administrators are limited to only one type of experience--one which is typically directly influenced by the particular cooperating teacher. These two problems were especially emphasized in relation to skills in handling classroom discipline.

Personal Interviews

In addition to confirming the responses to open-ended questions in the questionnaire, personal interviews provided further information. The following is representative of the most often cited comments in relation to areas of greatest needs for preservice programs:

1. Teachers and administrators alike emphasized the need for development of better human relations skills including love for students, understanding of child development, and ability to work productively with students, parents, and colleagues.

2. Preservice teaching experience at more than one grade level was recommended, especially by teachers. One English teacher stated, "My academic preparation in my department did not prepare me to teach at the junior high school level."

3. Earlier and more teaching experiences were an often-cited need for teacher preparation programs. One teacher had served as a teacher's aide while still a student in high school. This experience was followed by an internship and then student teaching. Both the principal and the teacher indicated that this three-year combination of teaching experiences helped make this teacher one of the best qualified teachers.

4. Screening prospective teachers, another suggestion often made in the interviews, may possibly be accomplished in a unique way by a three-year teaching experience in the type of training program suggested above. This type of training would also enable a prospective teacher to seek out the type of preservice training which that teacher specifically needs.

Summary and Conclusions

The results of the analysis indicate that in the opinion of superintendents, principals, and teachers, the preservice training programs experienced by teachers in Utah public schools have not adequately prepared teachers for their teaching experiences. Teachers, principals, and superintendents each rated all 14 of the teaching skills in questions 1 and 2 between "Somewhat" and "Highly" important. The average level of Preparation for the 14 teaching skills ranged from slightly below "Less than Adequate" to nearly "Adequate." Four of the teaching skills in Question #1 were the most pronounced in

degree of Importance and inadequacy of Preparation. These four teaching skills were F (Discipline), I (Working with Parents), K (Relating to Students), and L (Evaluation). Skills listed in Question #2 were rated Highly Important with Less than Adequate Preparation in each case by teachers, principals and superintendents. The first of these two skills was "Helping each student understand and develop his particular talents." The second skill was "Helping each student develop self-confidence in his academic abilities."

The following appear to be the most pronounced areas of deficiency in preservice programs according to teachers and administrators in this study:

1. Practical training in handling classroom discipline was judged to be the number-one need in teacher preparation programs.

2. Prospective teachers need earlier and more intensive experience in the public schools, with (perhaps) follow-up seminars after some full-time teaching has been experienced. Internships were especially emphasized.

3. There should be less theory and philosophy taught in teacher education programs; more practical and realistic classes were desired.

4. Developing positive human relations (i.e., student-teacher relations, parent-teacher relations, and relations with colleagues) should be one of the basic skills acquired in teacher preparation programs.

5. More training in evaluating and grading student achievement was requested by all three responding groups.

6. There was an expressed desire that elementary education emphasize the basics of reading, writing, and arithmetic.

7. University professors should spend some time (one writer suggested one year in every five) in the public schools.

Teachers, principals, and superintendents differed somewhat in their responses to the majority of teaching skills in Question #1, but not in Question #2. Principals and superintendents tended to rate the preparation level higher than teachers themselves did, where differences existed. These differences in ratings imply certain benefits which could come from favorable interaction in staff development. According to these results, administrators can praise teachers honestly for some strengths that the teachers themselves may not feel they have. This could have positive benefits in helping teachers develop a better self-image and hence become better teachers.

Subgroup categories analyzed were Educator Position (teacher, principal, and superintendent), Sex, Education Level (elementary and secondary), and Years of Service (1-2 years, 3-5 years, and 6 or more years). There were few differences between these subgroups. Other than for the category of Educator Position, the largest number of differences (a total of 9 for questions 1, 2, 6 and 11) existed between male and female teachers. Nearly all of the differences between subgroups of teachers were only minor differences. All groups tended to have ratings near the same level of Importance, Preparation, etc. The following list is a summary of differences between subgroups for the various categories.

Educator Position

1. Teachers rated the importance of skills related to the following slightly lower than did administrators: A (Lesson Plans),

E (Human Development), H (Working with Colleagues), I (Working with Parents), and J (Community Standards).

2. Teachers rated the level of Preparation slightly lower than administrators rated the teachers' level of Preparation in the following skills: E (Human Development), G (Innovations), H (Dealing with Colleagues), I (Working with Parents), J (Community Standards), and L (Evaluation).

3. Teachers rated themselves higher than did the administrators in the two areas of preparation in E (Human Development) and importance of G (Innovations).

Sex

1. Female teachers rated degree of Importance higher than did male teachers in B (Audio-Visual Equipment), C (Instructional Material), G (Innovations), K (Dealing with Students), and 2.D (Develop Self-Confidence).

2. Female teachers rated themselves higher than male teachers in level of Preparation in E (Human Development) and K (Relating to Students).

3. The overall assessment by female teachers of their teacher training program was higher than the assessment by male teachers.

In each case where there was a difference between male and female teachers, the female teachers' rating was higher than the male teachers.

Education Level

1. Secondary teachers rated their level of Preparation higher than did elementary teachers in D (Knowledge of Subject Matter).

2. Elementary teachers rated their level of Preparation higher

than secondary teachers in E (Human Development), F (Discipline), and 2.B (Develop Self-Confidence).

3. Elementary teachers rated themselves slightly better as teachers than secondary teachers.

Years of Experience

1. Differences in rating existed (but were not directional) between categories of years of experience, for levels of Preparation for E (Human Development), Preparation in H (Dealing with Colleagues), Importance of J (Community Standards) and Preparation of J.

2. Ratings in the level of Preparation increased with the years of experience for G (Innovations).

3. Self-rating as a teacher increased as years experience increased.

Locale

1. Rural teachers rated the importance of B (Audio-Visual Equipment) higher than urban teachers.

2. Rural teachers rated their level of Preparation in J (Community Standards) higher than did urban teachers.

3. Urban teachers rated themselves as being better teachers than did rural teachers, but the difference was slight.

The results of this study indicate that preservice education programs need to be reoriented if they are to prepare prospective teachers adequately.

A study is currently under way to examine expectations prospective teachers have toward their preservice training program. Preservice education students' responses to questions about the perceived adequacy

of their programs are being obtained. Students' attitudes and projections are being sampled along the continuum from entry to post-student teaching experiences. Such data will allow these findings to be compared with the findings reported in this paper.

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